

Translation

PATENT COOPERATION TREATY

PCT/JP2003/002527



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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/506782

Applicant's or agent's file reference SP51	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/002527	International filing date (day/month/year) 04 March 2003 (04.03.2003)	Priority date (day/month/year) 15 March 2002 (15.03.2002)
International Patent Classification (IPC) or national classification and IPC H04R 1/00, H04R 1/02, H04R 1/28, H04N 5/64		
Applicant SHARP KABUSHIKI KAISHA		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of _____ sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 19 September 2003 (19.09.2003)	Date of completion of this report 19 January 2004 (19.01.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

PCT/JP2003/002527

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-9	YES
	Claims		NO
Inventive step (IS)	Claims	2-4	YES
	Claims	1, 5-9	NO
Industrial applicability (IA)	Claims	1-9	YES
	Claims		NO

2. Citations and explanations

Claim 1

Document 1: JP, 11-259011, A (Hitachi, Ltd.), 24 September, 1999 (24.09.99), full text, Fig. 6

Document 2: JP, 8-168037, A (Casio Computer Co., Ltd.), 25 June, 1996 (25.06.96), full text, Figs. 1-5

The subject matter of claim 1 does not appear to involve an inventive step in view of documents 1 and 2 cited in the ISR. The liquid crystal display device of document 1 and the liquid crystal television set of document 2 belong to technical fields closely related to each other, and so a person skilled in the art could have easily conceived of applying a sound guiding path 19 described in document 2 to a sound discharging hole 152 described in document 1.

Claim 1

Document 1

Document 3: JP, 3-147498, A (Matsushita Electric Industrial Co., Ltd.), 24 June, 1991 (24.06.91), full text, Fig. 1

The subject matter of claim 1 does not appear to involve an inventive step in view of documents 1 and 3 cited in the ISR. The thin display device of document 1 and the thin display device of document 2 belong to technical fields closely related to each other, and so a person skilled in the art could have easily conceived of applying a speaker 3 and a port 4 described in document 3 to a speaker 151 and a sound discharging hole 152 described in document 1.

Claims 5, 6 and 8

Document 4: Microfilm of the specification and drawings annexed to the written application of Japanese Utility Model Application No. 55-177573 (Laid-open No. 57-100392) (Tokyo Shibaura Electric Co., Ltd.), 21 June, 1982 (21.06.82), full text, Figs. 1-6

Document 6: JP, 11-168783, A (Matsushita Electric Industrial Co., Ltd.), 22 June, 1999 (22.06.99), full text, Figs. 1-13

The subject matters of claims 5, 6 and 8 do not appear to involve an inventive step in view of documents 4 and 6 cited in the ISR. The speaker system of the television receiver of document 4 and the speaker device of the television receiver of document 6 belong to technical fields closely related to each other, and so a person skilled in the art could have easily conceived of applying the speaker grille having through holes 11 and non-through holes 21 provided in a plurality of spots described in document 6 to a speaker box 5 described in document 4.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of : V

Claim 7

Document 9: JP, 2001-42779, A (Toshiba, Corp.), 16 February, 2001 (16.02.01), full text, Figs. 1-11

Document 4

Document 6

The subject matter of claim 7 does not appear to involve an inventive step in view of documents 9, 4 and 6 cited in the ISR. The speaker device of the CRT equipment of document 9 and the speaker system of the television receiver of document 4 belong to technical fields closely related to each other, and so a person skilled in the art could have easily conceived of applying a speaker for ultra-low-pitched sound 6 of document 4 to a stand portion described in document 9.

Claim 9

Document 4

Document 6

Document 8: Microfilm of the specification and drawings annexed to the written application of Japanese Utility Model Application No. 2-44103 (Laid-open No. 4-4493) (Kenwood), 16 January, 1992 (16.01.92), full text

The subject matter of claim 9 does not appear to involve an inventive step in view of documents 4, 6 and 8 cited in the ISR. The speaker system of document 4 and the speaker device of document 8 belong to technical fields closely related to each other, and so a person skilled in the art could have easily conceived of applying the idea of differentiating the area ratios of bores 3a and 6 of grilles 3 respectively in front of a speaker for low-pitched sound and a speaker for high-pitched sound 2 to the grille of document 4.

It is within the ordinary design ability expected of a person skilled in the art to choose, as required, a larger area ratio of bores in the grille in front of the speaker for low-pitched sound than that of the speaker for high-pitched sound or not, in consideration of the balance between high-pitched sound and low-pitched sound.

Claims 2-4

The subject matters of claims 2-4 appear to involve an inventive step in view of the documents cited in the ISR. Document 1 does not describe a plurality of through holes formed in a first area substantially corresponding to the caliber of each speaker in a position opposite to the speaker, and a plurality of non-through holes formed in a second area around the first area, and this feature could not have easily been arrived at on the basis of the description in document 1: "because it can make sound discharging holes 152 invisible from the front."